

**U.S. Department of Interior  
Bureau of Land Management  
Roseburg District, Oregon**

**Environmental Assessment for the Mt. Scott Field Office  
BIT OF HONEY Regeneration/commercial thinning Harvest  
EA No. OR - 104 - 96 - 03**

Date of Preparation: February 12, 1996  
Preparer: Jim Luse

## INTRODUCTION

The Environmental Assessment (EA) is a site specific analysis of potential environmental impacts which could result with the implementation of a proposed action. This EA has been prepared for the Mt. Scott Field Office's proposed **BIT OF HONEY Regeneration/Commercial Thinning Harvest**. This proposal is in conformance with the Roseburg BLM District's Approved "Record of Decision and Resources Management Plan" (RMP) dated June 2, 1995. This proposal is also in conformance with the "Final Supplemental Environmental Impact Statement (FSEIS) on Management of Habitat for Late-Successional and Old Growth Forest Related Species Within the Range of the Northern Spotted Owl" (Feb. 1994) and its associated "Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl" dated April 13, 1994. The ROD establishes management direction consisting of ".... extensive standards and guidelines [S&G], including land allocations, that comprise a comprehensive ecosystem management strategy" (ROD pg. 1). The matrix land allocation is one of seven allocations specified by the ROD. "Stands in the matrix can be managed for timber and other commodity production, and to perform an important role in maintaining biodiversity" (S&G, pg. B-6).

The project described in this EA must support a "Finding of No Significant Impact" (FONSI) before this proposal can be referred for public review. A signed FONSI would find that no significant environmental impacts (effects) would occur with the implementation of the proposed actions beyond those addressed in the FSEIS when the project design features specified in this EA are adhered to. A thirty day public review period would follow the signing of the FONSI. A Decision Document would be signed after the completion of public review and reflect any changes as the result of public review. The signed Decision Document is the authority to proceed with the proposed action.

## I. PURPOSE OF AND NEED FOR ACTION

### A. Need for Action

The FSEIS and the RMP respond to dual needs: "... the need for a healthy forest ecosystem with habitat that will support populations of native species and includes protection for riparian areas and water. ... and the need for a sustainable supply of timber and other forest products that will help maintain the stability of local and regional economies ..." (RMP pg. 15) . The Mt. Scott Field Office proposes to offer the **BIT OF HONEY Regeneration/Commercial Thinning Harvest** for auction in fiscal year 1996. The ROD permits "timber harvest and other silvicultural activities .... in that portion of the matrix with suitable forest lands, according to standards and guidelines" (S&G, pg. C-39). This proposal would help meet the Mt. Scott Field Office's annual harvest commitment or probable sale quantity (PSQ).

### B. Description of the Proposal

The proposal is to harvest timber in the Rock Creek and Old Fairview watersheds, located in Section 34, T25S R2W and Section 03, T26S R2W, W.M. (see Appendix A - "Vicinity

Map" and Appendix B - "Tract Map). The proposed sale area is approximately 13 road miles northeast of Glide and 23 air miles northeast of Roseburg, Oregon. Approximately 157 acres will be analyzed for potential harvest activities. New road construction and renovation or improvement of existing roads would also occur. Section II (pg. 4) of this EA provides a more detailed description of the preferred alternative, no action alternative and alternatives considered but eliminated.

### C. Background (Watershed Analysis)

Overall the Bit of Honey timber sale project occurs on the ridge top divide between Rock Creek Watershed and Old Fairview Subwatershed. Approximately 30% of the project falls within the Conley Creek drainage (part of the Rock Creek Watershed) and 70% within the Honey Creek drainage (part of the Old Fairview Subwatershed). The Conley Creek drainage encompasses approximately 1,843 acres of the 62,685 acre Rock Creek Watershed. The Honey Creek drainage encompasses approximately 3,339 acres of the 11,591 acre Old Fairview Subwatershed. Because watershed analysis for Rock Creek is 95% completed, its information is being used for this analysis. Watershed analysis has been completed for Old Fairview.

The ROD requires late-successional forests be retained in watersheds that comprise 15% or less late-successional forests on federal lands (ROD, pg. C-44). Any timber stands greater than approximately 80 years of age were considered late-successional habitat (ROD, pg. B-2). For Rock Creek Watershed, analysis of current forest inventories shows that of the 27,996 acres of federal ownership, approximately 15,044 acres (54%) are in late-successional forests (greater than 80 years of age). As a result of recent timber sales, legislation passed by Congress over the past 5 years (Section 318 and the Salvage Bill), and the planned Lower Conley timber sale, approximately 576 acres of late-successional forests have been or will be harvested. The Preferred Alternative in this EA proposes a regeneration harvest of another 22 acres in the Rock Creek Watershed. This would leave approximately 14,446 acres (52%) of late-successional forest on federal lands within the Rock Creek Watershed. Additionally about 25 acres would be partial cut leaving an intact residual stand of late-successional type habitat.

For Old Fairview Subwatershed, of the 6,040 acres federally administered lands approximately 4,232 acres (70%) are in late-successional forests. A current sold timber sale (Right View) in this Subwatershed would harvest (by regeneration cut) approximately 86 acres. The Preferred Alternative in this EA proposes a regeneration harvest of an additional 47 acres which includes clearing for road construction. This would leave approximately 4,099 acres (68%) of late-successional forest on federal lands within the Old Fairview Subwatershed. About 62 acres would be commercially thinned leaving the residual stand to grow toward late-successional habitat.

#### D. Objectives

1. Practice ecosystem management as outlined in the ROD.
2. Produce a sustainable supply of timber and other forest commodities to the local economy.
3. Meet District PSQ goals.

#### E. Decisions to be made to meet Proposal Objectives

1. The Decision Maker, in this case the Mt. Scott Area Manager, will need to decide:
  - if this analysis supports the signing of a FONSI.
  - whether to proceed with the preferred alternative, modify the preferred alternative, or accept the no action alternative.
2. If the cutthroat trout or coho salmon is listed, consultation with the National Marine Fisheries Service (NMFS) will need to be done.

#### F. Issues considered but eliminated from Detailed Analysis

The following issues were considered by the ID Team during project design. They were eliminated from further analysis because project design features (PDF's) were included in the preferred alternative to lessen the anticipated environmental impacts of specific activities or the concern was not considered significant enough to warrant analysis. Section II, paragraph C (pg. 4) provides a list of specific PDF's incorporated into the preferred alternative to deal with these issues. These issues are summarized in Appendix D ("Scoping Summary") and addressed the Specialist's Reports in Appendix F.

##### 1. Wildlife Concerns

- a. Conflict with the "Peregrine Falcon Habitat Management Plan".
- b. Road location close to a wet area.
- c. The need for additional consultation due to the Regeneration harvest unit.
- d. The effect of additional roads and easier access on elk management and big game wintering.
- e. Size of harvest units.

##### 2. Hydrology and Fisheries Concerns

- a. Increased water flow into the intermittent streams near unit 34D due to new road construction.
- b. The two temporary roads needed to log unit 3A.

##### 3. Soils Concerns

Soil compaction and the hydrological effects of new road construction.

"Critical Elements of the Human Environment" is a list of elements specified in BLM Handbook H-1790-1 that must be considered in all EA's. These are elements of the human environment subject to requirements specified in statute, regulation, or executive order. These elements are as follows:

1. Air Quality
2. Areas of Critical Environmental Concern
3. Cultural Resources
4. Farm Lands (prime or unique)
5. Floodplain
6. Native American Religious Concerns
7. Threatened or Endangered (T&E) Species
8. Wastes, Hazardous or Solid
9. Water Quality, Drinking / Ground
10. Wetlands / Riparian Zones
11. Wild and Scenic Rivers
12. Wilderness

These resource values (except for item #7) were not identified as issues to be analyzed because: (1) there were no site specific impacts identified, (2) the resource value does not exist in the analysis area, or (3) the impacts were considered to be sufficiently mitigated through adherence to the Standards and Guidelines (S&G's) therefore eliminating the element as an issue of concern. These issues are also briefly discussed in Appendix E ("Critical Elements of the Human Environment"). Item #7 is addressed in the Specialist Report (Appendix F).

#### G. Issues to be Analyzed

The following issue (and resource) was considered by the ID Team as having sufficient concern to warrant more detailed analysis and will be addressed in section III, "Affected Environment" and section IV, "Environmental Consequences".

### **Cumulative hydrological effects (watershed and fisheries)**

## **II. ALTERNATIVES INCLUDING THE PREFERRED ALTERNATIVE**

This section describes the no action and proposed (preferred) action alternatives as well as any alternatives that were considered but eliminated from detailed study. As such these alternatives represent a range of reasonable potential actions. This section also discusses specific design features which would be implemented under the action alternatives. All action alternatives were designed to be in conformance with the ROD and RMP.

#### A. The No Action Alternative

There would be no entry for the harvesting of timber within the bounds of the project area under this alternative. Harvest would occur at another location within Matrix lands in order to meet harvest commitments.

#### B. The Preferred Alternative

The proposed action would harvest approximately 4.4 MMBF (million board feet) or 6,570 CCF (hundred cubic feet) of Mt. Scott RA's FY 1996 harvest commitment of 16.7 MMBF.

Harvest activities would occur on 63 acres of regeneration, 25 acres of partial cut, 62 acres of commercial thinning and 6 acres of road right-of-way clearcut. All of these activities are within close proximity to each other. Other activities would include: road construction, road renovation and improvement, site preparation with fire (slash burning) and replanting with young seedlings.

**Road construction** would occur on approximately 1.3 miles of public land and 0.2 miles of private land for a total of 1.5 miles. 1.3 miles of road would be permanent roads that would be rocked and become part of the transportation system and 0.2 miles would be temporary roads that would be tilled after use and returned to the productive land base. **Road renovation and improvement** would occur on approximately 1.3 miles of private dirt road and would consist of installing drainage structures (culverts and ditches), reshaping the subgrade and surfacing with crushed rock.

**Timber removal** would utilize regeneration and density management harvest techniques. The regeneration harvest is designed to open the forest canopy to allow the re-establishment of a new forest stand with early seral stage vegetation. The density management harvest includes partial cut and commercial thinning areas where the remaining trees would have ample room to grow and the general health of individual trees would be improved. The proposed action would require the skyline cable logging of all regeneration and commercial thinning units. The partial cut area, unit 34A, would be logged by helicopter.

**Firewood cutting** of logging debris (slash) would occur in landing cull decks and within 100' of roads on Federal ownership within the project.

The **prescribed burning of slash** would occur in the regeneration unit (34B) to prepare the site for tree planting. Approximately 63 acres would be burned. **Fire trails** would be constructed around the perimeters of the unit before it is burned.

#### C. Project Design Features As Part Of The Proposed Action

This section describes project design features (PDF's) which would be incorporated in conjunction with the proposed action. PDF's are operating procedures, restrictions, requirements and structures included in the design of the project in order to minimize adverse environmental impacts. The RMP contains a list of Best Management Practices (BMP's). The BMP's "... are defined as methods, measures or practices which are site specific to protect water quality or soil [productivity]". "...[BMP's] are selected during NEPA interdisciplinary process on a site specific basis to meet overall ecosystem management goals." (RMP Appendix D). BMP's selected on a site specific basis become PDF's. The ROD specifies certain Standards and Guidelines that projects must be in compliance with in order to meet the requirements of the ROD. These specific requirements applied site specifically also become PDF's. The following PDF's are included with the proposed action:

**1. To meet the objectives of the Aquatic Conservation Strategy (ROD B-9) and protect the Riparian Reserves :**

- a. The ROD (C-30) and RMP (pg. 24) specify riparian reserve widths equal to the height of two site potential trees on each side of fish bearing streams and one site potential tree on each side of perennial or intermittent nonfish bearing streams. Data has been analyzed from District inventory plots and the height of a site potential tree for the Rock creek and Old Fairview watersheds has been determined to be the equivalent of 180 ft. slope distance. Therefore, Riparian Reserve boundaries would be approximately 180 ft. slope distance from the edge of nonfish bearing streams and 360 ft. from the edge of fish bearing streams. There are no fish bearing streams in the project area.
- b. Trees within 100' of the Riparian Reserve boundaries, in the regeneration harvest area, or within 100' of streams in the commercial thinning areas, would be directionally felled and yarded away from or parallel to the Riparian Reserves to protect the reserve from logging damage.
- c. All wetlands less than one acre would receive protection to the edge of the riparian or wetlands vegetation. No logging would be allowed through the wetland. Trees that are designated for harvest, within 100' of the wetland, would be felled and yarded away from the wetland to protect this habitat. There is one wet area in unit 34B which would be combined with or joined to the Riparian Reserve and treated as a single feature.
- d. The partial cut area (unit 34A) would be helicopter logged to protect soils and water quality of the stream north of the unit by reducing roading and logging impacts.

**2. To minimize soil compaction, limit erosion, protect the duff layer and protect slope stability:**

- a. All newly constructed and existing dirt **roads** that access the area would have drainage structures installed or improved and be surfaced with crushed rock to reduce sedimentation. No road construction or log hauling on unsurfaced roads would be permitted from Oct. 15 to May 15 or during periods of heavy precipitation unless conditions are such that no environmental damage would occur. All temporary roads would be blocked and water barred at the end of the dry season. When logging is completed and the temporary roads are no longer needed for logging the roadbed would be tilled, water barred, blocked and seeded with a native grass (if available) or elk forage mix from the Oregon Department of Fish and Wildlife. All construction and renovation would follow the BMP's (RMP Appendix D, pgs. 132-138).

- b. **Skyline logging** would be required on all cable harvest units. The ground disturbance would be limited by requiring partial suspension during yarding (i.e. use of a logging system that "suspends" the front end of the log during in-haul to the landing and thereby lessening the "plowing" action that disturbs the soil). These areas would be identified in the logging plan for partial suspension. Full suspension would be required across the stream in unit 3A.
- c. No **ground based logging** is anticipated, however the Authorized Official (Contract Administrator) may determine that isolated minor ground based logging would be necessary. In such cases it would receive Interdisciplinary review. Any such ground based logging would be seasonally restricted from Oct. 15 to May 15 or during periods of heavy precipitation unless conditions are such that no environmental damage would occur. Ground based activities would be confined to existing skid trails as identified in the logging plan. All skid trails that are used, and specified existing trails that show negative impacts, would be tilled with a winged subsoiler.
- d. Down woody debris (DWD) would be reserved in accordance with ROD guidelines to leave a source of organic material that can become incorporated into the soil structure.
- e. All **fire trails** that might carry water would be water barred to limit erosion.
- f. **Prescribed burning** would be accomplished during the winter/spring season when the soil and duff layer (soil surface layer of fine organic material) moisture levels are high and the large DWD has not dried. This practice would protect the soil duff layer and the DWD from being totally consumed by fire.

### 3. To protect the wildlife legacies:

- a. Future nesting and roosting habitat for cavity dwellers would be provided by reserving all existing hard or soft snags sufficient to meet the population needs of 40% of potential population (RMP pg. 64). This has been determined locally to be 1.2 snags per acre. Where this quantity is lacking, additional green trees would be reserved for future snag recruitment. Note: Any snag deemed as hazardous to worker safety could be fallen at the discretion of the operator. Such trees would be reserved and left as DWD.
- b. In the regeneration area, at least 120 linear feet of DWD per acre (at least 16" diameter and 16 ft. in length) would be preserved for habitat of organisms that require this ecological niche (ROD C-40, para. B). Where DWD is lacking in the above quantities extra green trees would be reserved for future DWD recruitment. In the density management areas, existing DWD would be reserved. (RMP pg. 65)



- c. In the regeneration areas, wildlife habitat values would be maintained through the retention of six to eight large (greater than 20") green conifer trees per acre and occasional hardwoods as a biological legacy (RMP Appendix E, pg. 150).
- d. In unit 34A, the use of helicopter logging would afford greater protection to snags and retention trees.

**4. To protect air quality:**

All slash burning would be conducted under the requirements of the Oregon Smoke Management Plan and done in a manner consistent with the requirements of the Federal Clean Air Act. The Oregon Department of Environmental Quality is responsible for implementing the Federal Clean Air Act, and the resulting Oregon Smoke Management Plan (OSMP) which requires the Oregon State Department of Forestry to manage the amount of smoke released into the airshed from slash and field burning within the state. Only the regeneration area (unit 34B) would need to be slash burned.

**5. To enhance stand diversity:**

- a. All pacific yew trees would be reserved.
- b. Small hardwood pockets and wet areas (< 1 ac.) would be retained.
- c. All tree species that are present would continue to be represented.
- d. In the density management areas, the density would be reduced to increase the vigor of conifers and hardwoods.
- e. Snags and DWD would be reserved as described in paragraph 3 above.

**6. To prevent accidental spillage of petroleum products or other hazardous materials:**

All hazardous materials (particularly petroleum products) would be stored in durable containers and located so that any accidental spill would be contained and not drain into riparian areas.

**D. Alternatives Considered but Eliminated**

No other alternatives were considered by the ID Team during the formulation of this project. The following options were considered by the project proponent and rejected before they were presented to the ID Team:

**1. Regeneration harvest of unit 34A.**

The original proposal (Project Initiation Letter 6/13/95) called for regeneration harvest of this unit, however, an on-the-ground reconnaissance was performed by the project proponent (Forest Management) prior to the first Interdisciplinary Team (IDT) meeting (7/11/95) and this option was rejected. This approach was rejected because of soils, silvicultural and watershed concerns. The project was proposed to the IDT as a density management (partial) cut with helicopter logging resulting in less impacts to the resources.

2. Commercial thinning all available stands in T26S-R02W-Sec. 3.

This alternative was rejected by the Forest Management staff prior to the first IDT meeting for silvicultural and operability reasons.

### **III. AFFECTED ENVIRONMENT**

This section describes the existing environment and as such forms a baseline for the comparison of the affects created by the alternatives under consideration. This section addresses those resources identified as a key issue for detailed analysis. Appendix F (Background Reports) contains Specialist Reports that address the affected environment for those resources that were not considered as key issues to be analyzed in the main body of this EA.

#### **Hydrology (Key Issue - Cumulative Hydrologic Effects - watershed):**

As the age of the timber stands increase (especially stands <26 years old) the land base that is considered hydrologically recovered would increase. Using the Hydrological Recovery Procedure (Jones et al 1990); the Rock Creek Watershed is 67% to 75% recovered, the Conley Creek drainage is 66% to 69% recovered, the Old Fairview subwatershed is 77% to 82% recovered and the Honey Creek drainage is 79% to 85% recovered. Analysis of current forest inventories shows that the Rock Creek Watershed contains approximately 27,996 acres of Federal ownership of which 15,044 acres (54%) are 80+ years old and the Old Fairview Subwatershed contains approximately 6,040 acres of Federal ownership of which 4,232 acres (70%) are 80+ years old.

#### **Fisheries (Key Issue - Cumulative Hydrologic Effects - fisheries):**

The proposed project lies within the Conley Creek drainage of the Rock Creek watershed and the Honey Creek drainages and Old Fairview subwatershed. Conley Creek is utilized by anadromous fish up to the falls located in section 29. ODF&W aquatic habitat surveys rate Conley Creek overall as "fair" to "good". Large amounts of fine sediment appear to be the limiting factor for fish. There is also a lack of large woody debris in the lower reach. Honey Creek has an overall "fair" rating by ODF&W aquatic habitat surveys. Again large amounts of fine sediment and a lack of large woody debris appear to be the limiting factor for fish.

### **IV. ENVIRONMENTAL CONSEQUENCES**

This section forms the analytical basis for the comparisons of the alternatives. This section is organized by the effects on resources or issues identified in section I paragraph G by the alternatives. Appendix F (Background Reports) contains Specialist's Reports that provides greater details of the environmental consequences for those resources that were not considered as key issues to be analyzed in the main body of this EA.

#### **A. No Action Alternative:**

This paragraph describes the existing environment and the anticipated consequences of the "no action" alternative.

**Hydrology (Key Issue - Cumulative Hydrologic Effects - watershed):**

There would be no net change in the existing condition. As timber stand age increases (especially stands <26 years old) hydrologic recovery would increase. Recent trends indicate that private timber becomes available for harvest at age 50 to 80. This would indicate that some private stands that were cut in the 1960's would be ready for harvest in 15 more years. The existing dirt roads would continue to provide sediment to nearby streams during winter runoff.

**Fisheries (Key Issue - Cumulative Effects - fisheries):**

There would be no anticipated change from the existing condition. Streams would remain in their current condition. Areas of past habitat degradation would continue to recover at the current rate of recovery. The existing condition would be expected to change as a result of natural occurrences. No roads would be built and there would be no increases in the acreage of unrecovered stands. There would be no direct impacts and there would be no opportunity for additional indirect or cumulative impacts.

**B. The Preferred Alternative**

This paragraph describes the anticipated consequences of the "preferred alternative" beyond those that are mitigated by PDF's (see Section II, para. C (pg. 4)).

**Hydrology (Key Issue - Cumulative Hydrological Effects - watershed):**

Under the proposed action, approximately 63 acres would be harvested in the regeneration unit. Approximately 87 acres of density management would reduce the canopy cover to approximately 50% and leave approximately 100 trees per acre. Using the Hydrological Recovery Procedure (Jones et al 1990); hydrologic recovery in the Rock Creek Watershed would remain at 67% to 75%, recovery in the Conley Creek drainage would go from 59% to 62%. Recovery in the Old Fairview subwatershed would go from 76% to 80%. Recovery in the Honey Creek drainage would go from 76% to 82%. The proposed regeneration harvest would not change the percentage of stands greater than 80 years, in Federal ownership, significantly. Since streams, and their riparian reserves, were excluded from the regeneration sale areas; water quality and water temperature would not be significantly impacted by the proposed action. Peak flows would be expected to increase through the loss of transpiration and canopy cover, however the amount of increase is unknown.

**Fisheries (Key Issue - Cumulative Effect on fisheries):**

By implementing the standards and guidelines of the ROD any direct impacts to fisheries resources should be prevented. This action should have no negative impacts on certain habitat components and processes that are important to fish, specifically, Large Woody Debris (LWD) input, stream temperature, channel morphology, riparian function, and floodplain function. Streams would remain shaded and LWD loading would continue at a natural rate. The one exception to this is the crossing of an intermittent stream by the proposed road near unit 34D.

Strict adherence to the PDF's as stated previously should prevent direct impacts. Full suspension of logs over the stream in unit 3A should prevent or minimize impacts to that stream as well.

Indirect and cumulative impacts are harder to quantify, and usually show up as alterations in the flow and sediment regimes. The proposed action would increase the percentage of the watershed that is considered hydrologically unrecovered (forest stands younger than 30 years) with the 63 acres of regeneration harvest. Research shows a positive correlation between road densities and stream crossings and the amount of sediment in streams. It is reasonable to assume that an increase in the road density and the stream crossing near unit 34D would result in a slight increase in sediment in the streams, at least in the short term. Considering the current condition of Honey Creek, however, it is doubtful that an increase due to the proposed action would be detectable downstream. By applying the standards and guidelines outlined in the ROD, this proposed action is not likely to prevent attainment of Aquatic Conservation Strategy objectives (ROD B-9).

This proposed action is a "may affect" for coastal cutthroat trout and coho salmon, and would require consultation with the National Marine Fisheries Service should either species be listed.

#### **IV. CONTACTS, CONSULTATIONS, AND PREPARERS**

##### **A. Agencies, Organizations, and Persons Consulted**

Although this project is in compliance with the RMP which has already had extensive public involvement (RMP pg. 6 & 7), a scoping letter was sent out to various interested people. This list of people included adjacent landowners, downstream water users, and those who have expressed interest in timber related projects. This project was also included in the Roseburg BLM Planning Update (Summer 1995). See Appendix G ("Public Contact") for more detail.

Oregon Natural Resources Council sent a letter which referred to comments from a much longer letter sent March 27, 1995 that detailed their concerns for projects of this nature.

A reply from Lone Rock Tiber Co. was supportive of the efforts to commercially thin young stands.

##### **B. Future Public Notification**

A 30-day public comment period will be established for review of this EA and the associated FONSI. A notice of availability will be published in the Roseburg News Review. This EA and its associated documents would be sent to all parties who request them. If the decision is made to implement this project, a notice would be published in the Roseburg News Review.

C. List of Preparers

Dan Couch  
Isaac Barner  
Ron Wickline  
Mike Creswell  
Ralph Klein  
Elijah Waters  
Jim Luse  
Lyle Andrews  
Tom Lonie  
Jerry Mires  
Dave Erickson  
Fred Larew  
John Patrick  
Bill May  
Bruce Baumann

ID Team Leader  
Cultural Resources  
Botany  
Silviculture  
Soils / Hydrology  
Fisheries  
EA Coordinator / EA Preparer  
Engineering  
Fuels / Air Quality  
Wildlife  
Recreation / VRM  
Mining Claims / Land Resources  
Presale Forester  
Project Engineer  
Project Lead

## CRITICAL ELEMENTS OF THE HUMAN ENVIRONMENT

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order. These resources or values are either not present or will not be affected by the proposed actions or alternatives, unless otherwise described in this EA. This negative declaration is documented below by individuals who assisted in the preparation of this analysis.

Element	Responsible Position	Initials	Date	Remarks
Air Quality	Area Fuels Management Specialist			
Areas of Critical Environmental Concern	Resources Forester			
Cultural Resources	District Archeologist			
Farm Lands (prime or unique)	Area Soil Scientist			
Flood Plains	Area Soil Scientist			
Native American Religious Concerns	Resources Forester			
Threatened or Endangered Species (wildlife)	Wildlife Biologist			
Threatened or Endangered Species (plants)	Botanist			
Hazardous/Solid Wastes	District Hazardous Materials Coordinator			
Water Quality Drinking/Ground Water	Area Soil Scientist			
Wetlands/Riparian Zones	Area Soil Scientist			
Wild and Scenic Rivers	Recreation Planner			
Wilderness	Recreation Planner			